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ABSTRACT

A process to initiate recommended reform initiatives based on effective schools correlates and teacher effectiveness research is described in this report. Using the Achievement Formula, school districts conducted indepth self-studies of their instructional programs to compare student achievement levels with student ability and to determine the extent to which school context variables such as attendance, climate, and instructional leadership impact student achievement. Outcomes included improvements in skill levels of teachers and principals, grades, student attitudes, perceptions of school climate, and collaborative relationships. The staff development component, Techniques of Responsive Intervention to Validate Effective Teaching (TRIVET), was found to be most effective when teachers and administrators participated together. TRIVET positively affected administrators' skills in conducting appropriate classroom appraisals, leading to improved quality of classroom instruction, which in turn contributes to increased student achievement. Two tables are included. The appendix contains the Achievement Formula flowchart and school plan worksheets. (56 references) (LMI)

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Changes in Staff and Student Performance as a Function of an Effective Schools Approach to Staff Development

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INTRODUCTION

Despite the flurry of Reform initiatives underway in most of the nation's schools, holding districts accountable for student performance, many colleges and universities continue to prepare school leaders as reactive managers rather than proactive instructional leaders. Many superintendents and principals find themselves facing the challenges of the 90s armed with skills that are inadequate and/or obsolete. In addition to the redesign of initial preparation programs, immediate and sustained attention must be directed toward retraining school leaders, often while they are in the very throes of coping with Reform.

Dozens of recent publications such as AASA's Skills for Successful School Leaders by John Hoyle, Fenwick English, and Betty Steffy (1990) expect district administrators to facilitate systematic curricular planning and instructional improvement activities to increase the overall effectiveness of their schools. It is no small irony that many of the recommendations set forth in the Reform literature are consistent with attributes found in the Effective Schools research as positively correlated with student achievement. These attributes are: (a) satisfactory school attendance (time-on-task), (b) a positive attitude among students toward themselves as learners, (c) a healthy building and classroom climate, (d) evidence of district commitment to maximum student achievement, (e) high quality classroom instruction, (f) positive expectations among teachers for student achievement, and (g) strong, collaborative instructional leadership by the building principal.

Although administrator preparation programs cannot be expected to

assume the burden of system-wide Reform single-handedly, they are in a unique position to influence school leaders in the direction of district-wide self-study. In 1986, researchers at Kent State University developed a process through which school districts could address the recommendations set forth in the Reform initiatives by utilizing the Effective Schools correlates and Teacher Effectiveness research. Using the Achievement Formula, districts conduct an in-depth self-study of their instructional program to determine whether present levels of pupil achievement are commensurate with student ability and the extent to which contextual variables such as attendance, climate, and instructional leadership may impact student achievement. Collectively, any discrepacies between predicted and actual levels of student achievement in individual classrooms, buildings, and throughout the district provide the targets for instructional reform. The operation of the Formula also certifies the merits of Effective Schools correlates already in place and working well. The Formula enables districts to formatively monitor, summatively evaluate, and reliably predict student achievement levels in readiness for the accountability demands of the 1990s. By participating in The Achievement Formula, districts demonstrate a commitment to student performance as the responsibility of the entire district and the principal objective of its collective resources. A flowchart displaying the components of the Formula is attached to this handout.

BACKGROUND RESEARCH

The Achievement Formula was developed in response to the criticisms set forth in the most celebrated group and individual reform initiatives of the early 1980s. According to A Nation at Risk, a report issued by the National Commission on Excellence in Education (Gardner, 1983); the Action for Excellence by the Education Commission of the States (Hunt, 1983); Making the Grade, issued by the Twentieth Century Fund Task Force (Wood, 1983); The Paidea Proposal (Adler, 1982); The High School Study (Boyer, 1983); A Place Called School (Goodlad, 1983); and Horace's Compromise (Sizer, 1983), the weaknesses in America's educational system provided clear and unmistakable direction for remedy. School districts must hold themselves accountable for the achievement of all students at their optimum level; boards of education must adopt policies and enact procedures to raise student achievement; school districts must require strong instructional leadership by the building principal; and the quality of classroom instruction must be improved significantly to accommodate the diverse learning needs of individual students and to certify specific competencies in all children.

These recommendations are virtual re-acknowledgements of those set forth a decade earlier in the Effective Schools research (Brookover, 1981; Brookover, Ferderbar, Gay, Middleton, Posner, & Roebuck, 1980; the California School Effectiveness Study, 1977; Edmonds, 1979a and 1979b; Edmonds & Frederickson, 1978; Edmonds & Comer in O'Neill & Shoemaker, 1989; Kean, 1979; Lezotte, 1982; The New York State Study, 1974; and Weber, 1971). Effective Schools researchers identified several descriptors which, when in place,

correlate positively with improved student achievement: student attendance, a positive attitude among students about themselves as learners, quality classroom instruction, high teacher expectations for student success, strong instructional leadership by the building principal, a safe and orderly school climate, and documented evidence of district commitment to maximizing student achievement. Essential to the reform and Effective Schools initiatives is the legitimate involvement of parents and community representatives. Two recent Effective Schools reports (Stringfield & Teddlie, 1988; Teddlie, Stringfield, Wimpleberg, & Kirby, 1990), both of which represent the culmination of a six-year study, found that several of these factors positively correlated with student achievement and were independent of socio-economic status: student perception of academic climate, the principal's sense of school efficacy, the family commitment to education, student sense of long-term educational achievement, and the presence of a positive school climate.

Considered together, the recommendations of the early reform efforts and the Effective Schools research place the major responsibility for restoring the credibility of America's schools on the shoulders of the clasrroom teacher and the building principal. Edmonds contended that teachers in the effective schools utilize a wide range of instructional behaviors consistently associated with heightened student achievement, diminished discipline problems, and better classroom organization (O'Neill & Shoemaker, 1989). Concurrent with the research of Edmonds and his colleagues to identify what characterizes an effective school, Rosenshine and Furst (1973), Berliner (1976-1988), Brophy (1973-1989), Bloom (1974), Calabrese

(1986), Eisner (1987), Evertson and Holley (1981), Gage (1978), Good (1979 and 1982), Stallings (1980), and Soar, Medley, and Coker (1983) identified specific teaching behaviors positively correlated with student performance. Collectively, these efforts became known as the the Teacher Effectiveness research. In their translation of the Effective Schools theories into actual practice, Seaburn and Sudlow (1987) found that, when teachers behave more sytematically, there is an improvement in student achievement as well as in attitude. They recorded actual changes in teacher behavior when there was follow-up, feedback, and coaching by others to maintain newly-acquired skills. Similarly, Stringfield and Teddlie (1988) reported that interactive instruction yeilded higher percentages of student time-on-task and that greater amounts of direct instruction positively impacted student achievement. In their research on the status of current reform projects, Lieberman and Miller (1990) discovered that, in successful reform efforts, classroom instruction was more student-centered and less teacher-centered. Ervin (1989), President of the Danforth Foundation, which is the underwriter of several Effective Schools projects, cited the work of teachers and principals with students as the determiner of a school's level of effectiveness. As the instructional leader in the building, it is the principal's responsibility to monitor classroom instruction, as well as student performance, and to facilitate meaningful intervention as necessary. Through collaboration with his or her teachers, the principal establishes a legitimate "team effort" to succeed in what Turner (1986) calls "stemming incompetence."

Later in the 80s came what has been called the second wave reform

recommendations (Sizer in Bowen, 1988). Convinced that most first wave reform efforts failed because they were initiated in "top-down" fashion, Sizer insisted that enduring reform can only succeed if it emerges from the "grass roots" level in actual school districts involving on-line personnel. On the strength of their multi-year studies in Georgia and New Haven, Glickman (1990) and Comer (in Goldberg, 1990) corroborated Sizer's contention that decentralization would empower the stakeholders in individual school buildings. At their 1989 Education Summit, the National Governors' Association reached consensus with President Bush on several national school reform goals and objectives. These included a focus on student outcomes, school-based management (or decentralization), and the frequent assessment of student performance (Honig, 1989). Throughout the decade of reform, citizens in all 50 states continued to express concern about the quality of America's schools. In each of the Gallup Polls between 1981 and 1990, poor curriculum and weak achievement standards were identified as two of the five greatest problems facing the nation's educational system (Elam, 1981-1990). From its inception in 1986, The Achievement Formula continues to address the concerns of reformers and consumers of America's public schools. Legitimate and enduring reform must occur at the district and building level, must focus on student achievement, and must involve every aspect of school operation that might impact student performance.

HISTORY OF THE PROJECT

The Achievement Formula was developed in 1985 and shared at the annual meeting of the American Educational Research Association in 1986. Between 1985 and 1988, the Formula was piloted in three

northeast Ohio school districts and involved 168 students at grades 4, 7, and 10. Data from the pilot study were presented at AERA in 1988. During the 1988-89 school year, the Formula was applied in one Cluster of a large urban district; involved were 1,460 students at grades 2, 4, and 6. The staff development portion of the Formula--TRIVET--was presented at the annual meeting of the National Council of Professors of Educational Administration in 1988, 1989, and 1990. TRIVET was also featured at the national conventions of the American Association of School Administrators in 1989, 1990, and 1991, and the American Educational Research Association in 1989 and 1990.

During the 1989-90 school year, the Achievement Formula involved over 4,500 students at grades two through seven in 15 of the 23 Cluster buildings in that same urban district. Since 1987, 26 K-12 building principals and assistant principals and 100 teachers have been involved in the staff development portion of the project. In October, the analysis of 1989-90 project data were presented to classroom teachers and building administrators for translation into building-wide and classroom intervention plans. Each plan identifies targets for pupil performance that address discrepancies between students' predicted and actual levels of achievement. Plans also reflect various contextual targets such as attendance, climate, quality of instruction, and so on, the immediate objective of which is the upgrading of the effectiveness of the school environment. The ultimate goal of each plan is to improve the congruence between students' actual and predicted levels of performance and to raise the level of student achievement throughout the Cluster. A sample Building Intervention Plan is appended to this handout.

RESULTS THUSFAR

Attendance. Both high schools moved closer to the district goal of 85%, progressing from 79% and 78% to 81% and 84%, respectively. Of the five intermediate buildings, two exceeded the district goal of 90%, and two of the other three are short by only two percentage points. Five of the 11 K-6 buildings met or exceeded the goal of 95%, and five of the remaining six did not lose ground from 93% and 94%. Staff members have begun to focus on attendance as on integral part of each child's academic program and an important prerequisite to achievement.

Suspensions. During their two years of involvement in the TRIVET component of the project, both high schools experienced a decrease in the number of suspensions by 10% each year. In the four intermediate schools, three reported fewer suspensions. Reports from the 11 K-6 buildings indicated that seven had significant decreases, and two had no suspensions at all. Staff were making a more concerted effort to devise in-school alternatives to avoid removing students from classrooms.

Failure rates. In the two high schools, failure rates were reduced by 11% and 24% over the two-year period. In three of the four intermediate buildings, the percentage of students failing dropped by 10, 6, and 3%. Failure rates in nine of the 11 K-6 buildings were reduced by a range of 2 to 7 percentage points; two buildings remained the same at 1% and 0, respectively. As building staffs help students select viable alternatives to failure, the percentage of students receiving Fs decreases.

Grade distribution. For grades 7-12, records are kept of

letter grades given by individual teachers. Among the project teachers who were involved in the TRIVET training, changes in their grade distributions between the first and final grading period signal one positive impact of their involvement. At grades 9-12, five of the eight teachers increased the number of As, four increased the number of Bs and Cs, and 6 decreased the number of Fs. Among the six intermediate teachers, two increased the number of As, three increased the number of Bs, and two decreased the number of Fs. In a report from the Cluster Superintendent released on February 21, 1991, principals were congratulated that in the four buildings thusfar involved in the project, 66 to 75% of the classrooms had reported a reduction in the number of Fs and an increase in the number of As and Bs during the first semester.

Student attitude. Students' attitude toward themselves as learners was assessed using Soar and Soar's The Student Self. The number of grade two students feeling strongly positive about themselves as learners increased by 44% between the 1988-89 and 1989-90 project years. Unfortunately, the number of students at grades 4 and 6 feeling strongly positive decreased by 6 and 7% respectively. As building staffs continue to target the enhancement of student self-esteem and feelings of self-worth, student attitude is expected to improve.

School climate. An adaptation of The Connecticut School Effectiveness Survey was used to assess teacher and student perceptions of the climate or atmosphere within the school. Climate data were analyzed according to each of 11 factors, and comparisons were made between project years I and II to discern improvements that

might have been attributable to project activities. In the 10 buildings where student data were collected both years, students reported more positive perceptions about teacher growth and renewal in six, about responsiveness to student needs and safe-orderly environment in five each, and about decision-making in four. In the eight buildings where teacher climate was compared for both years, teacher perceptions about monitoring student progress improved in six buildings, and their feelings about growth and renewal and high expectations each improved in five of the ten buildings. Teacher and student percpetions became more consistent with each other in the areas of clear school mission, responsiveness to student needs, and decision-making in five of the ten buildings. Although the progress was slight, it did eclipse what had been a gradual worsening of perceptions. Building intervention plans will include specific climate targets.

Instructional leadership. In each project building, teachers were asked to complete anonymous questionnaires about their perceptions of the instructional leadership provided by the principal. Adapted from The Connecticut School Effectiveness interview, the survey consisted of four factors: presence and visibility, curriculum and instruction, decision-making, and interpersonal relations. In the four buildings where principals have been involved in the TRIVET system for two or more years, 75% of the teachers rated the principal as strong or very strong in all four of the factors. Between the first and second project years, teacher perceptions became more positive or remained positive in six of the eight buildings. There were also fewer negative responses in six of the buildings. During

the second project year, six additional buildings were involved. Although the average perception about the quality of instructional leadership provided in all 16 buildings was 60% positive, the lowest ratings were in curriculum and instruction for both project years in 11 of the 16. A corrollary to each intervention plan will be the principal's own targets for increasing his or her leadership quotient as perceived by the staff.

Quality of instruction and teacher expectations. Data on the quality of classroom instruction and the level of teacher expectations were gathered during an interview between the principal and individual teachers. They collaboratively developed a profile on the teacher that indicated areas of strength, as well as targets for growth. The profile contained the 15 TESA behaviors and 30 specific teacher behaviors set forth in the Teacher Effectiveness research. Of the 36 teachers profiled, 67% received between 90% and 100% of the total possible points for Quality of Instruction. Only 7% were profiled below the 79% proficiency level. For the Teacher Expectations section, 75% received between 90 and 100% of the points possible, and the number receiving less that 79% was only 5%. Individual profiles as well as building patterns will be integrated into the classroom and building intervention plans, respectively. Since the profiles are completed annually, they serve as a longitudinal record of each teacher's growth and development.

Institutional commitment. During both project years, data describing the district's [Cluster's] commitment to improving student achievement were collected via a written survey of representatives from teacher, principal, and parent stakeholders. Respondents were

asked to indicate their perception of the Cluster's legitimate and documentable commitment to eight indicators corresponding to the Effective Schools criteria. Responses were quantified, and the overall commitment for the Cluster as perceived by those surveyed was 37.5 % at the conclusion of the 1988-89 project year and 62.5% at the conclusion of 1989-90. Although not as strong as had been hoped, the second year data represent considerable growth from the first. As the Cluster analyzes the institutional commitment data by each of the eight factors and the six sources of evidence for each, definite targets for improvement become apparent.

Results of the Staff Development Component. The Achievement Formula includes a staff development program to involve the building principal and classroom teacher in a collaborative effort to improve classroom instruction. Techniques of Responsive Intervention to Validate Effective Teaching, known as TRIVET, is a year-long training program that provides building principals and lead teachers the opportunity to develop the competencies necessary to effectively appraise classroom teaching and prescribe strategies for improvement. These principal-teacher teams work collaboratively during the training to enhance the instructional effectiveness of the entire building. The TRIVET training includes four processes for the collection and analysis of classroom data. They are (a) the **Pre-observation Conference** to gather significant information about the teacher's overall planning as context for the lesson to be observed; (b) **Script-taping** to record activities that occur during the lesson and to distinguish between events that went well and those which were unsuccessful; (c) the **Post-observation Conference** to discuss how

the teaching behaviors impacted student learning and to consider alternate ways to present the lesson; and (d) the **Action Plan** to collaboratively determine areas for growth, strategies for improvement, criteria for success, a timeline, and resources for assistance.

To accurately distinguish effective from ineffective instruction and to prescribe viable remediation or enrichment strategies for improvement, participants are provided training in the teaching behaviors identified by the Teacher Effectiveness and Process-Product research as positively correlated with student achievement. These behaviors include: (a) examination of year-long, unit, and daily **Planning**, including congruence among objectives, strategies, and assessments, the developmental sequencing of classroom activities, and the use of Bloom's taxonomy for variety of mental processing; (b) distinguishing effective from ineffective **Behavior Management**, including the use of a discipline plan, various levels of student involvement, grouping, pacing, and focusing attention as a management technique; (c) the **Organization of Time, Space,and Materials**, focusing on the efficient use of academic engaged time, transitions, routines and procedures, materials handling, and physical setting; (d) **Learning Climate** or the establishment of a businesslike and task-oriented atmosphere, nurturing positive teacher-pupil relations, including cooperative learning and the use of student interest surveys; (e) the **Assessment** of students prior to, during, and following instruction, using valid paper-pencil methods as well as several non-paper/pencil methods such as signalling or webbing, and correctly using standardized test results; (f) **Instructional**

Methods, examining the criteria for effective motivation, objectives, how to select the appropriate instructional strategy, and various elements of lesson design such as critical attributes, modeling, questioning, etc.; (g) **Oral and Written Communication**, including the effective use of the chalkboard, communications with parents and students, and providing clear explanations related to content; and (h) the fifteen TESA behaviors for teacher expectations.

During the training, participants review pertinent research findings, discuss specific instructional problems, and practice their appraisal skills on videotaped teaching segments. Between sessions, participants implement their training in the actual classrooms of fellow teachers in a collegial analysis of instructional behaviors. Each team jointly examines the instructional program in its particular building in order to identify the individual and collective needs for staff development pursuant to reform.

In the four years since its inception, the TRIVET program has involved over 300 teachers and principals in over 1,700 classroom observations, the culmination of which has been over 1,500 classroom Action Plans developed to improve instruction throughout northeast Ohio. If TRIVET training results in the improvement of classroom instruction, it is anticipated that student achievement will increase proportionately.

To implement a project of this magnitude, the necessary investment in human and material resources is considerable. TRIVET developers felt the obligation to monitor the effectiveness of the program as a model for training principals and lead teachers in the appraisal of classroom teaching. Hence, a study was conducted to compare the

appraisal skills of evaluators who were TRIVET trained with those who were not trained. Comparisons were made between trainees and non-trainees in the areas of data collection, analysis, and prescription. The design, results, and implications of the study are set forth in below.

TRIVET Outcomes Thusfar. To determine the effectiveness of the TRIVET program, several measures were considered: (a) the pre- to post-test comparison of each participant's analysis of a videotaped classroom teaching segment, (b) the appraisal of the TRIVET program by participants, (c) the quality of the participants' written work in the appraisal of actual classroom teaching, (d) teacher self-report of changes in their classroom practices following TRIVET, and (e) the competence level of participating teachers as indicated on Teacher Effectiveness profiles collaboratively developed by each teacher and his or her building principal.

Pre- to post-test comparison. The overall score on the pre- and post-test was composed of 92 separate variables for the data collection, analysis, and prescription components combined for a total of 252 points. A score of 252 points is virtually perfect, requiring the observer to note absolutely every miniscule detail of the lesson. It is more realistic to hope that even the most astute observer could note just over half the detail, or earn 140 points. Table 1 shows the mean results for each group of participants since 1988. The 1988-89 administrator group scored a pre-test mean of 38.31 and a post-test mean of 95.11 for a mean gain of 56.80 points. The 1988-89 administrator-teacher group scored 20.74 and 111.94 for a mean gain of 91.20 points (As a part of this study, a control group was included.

Table 1

Pretest and Post-test Means for the TRIVET Participants for the Subscales and the Overall Assessment

	Pretest Mean	Post-test Mean	Points Gained
Data Collection			
administrator 1988-89	29.31	72.19	42.88
teacher/administrator 1988-89	12.58	82.26	69.68
administrator 1989-90	38.92	64.77	25.85
teacher/administrator 1989-90	15.76	84.76	69.00
teacher peer adivisor 1989-90	18.90	76.10	57.20
Analysis			
administrator 1988-89	7.53	18.03	10.50
teacher/administrator 1988-89	6.68	23.90	17.22
administrator 1989-90	7.54	18.23	10.69
teacher/administrator 1989-90	6.22	25.03	18.81
teacher peer advisors 1989-90	8.55	27.90	19.35
Prescription			
administrator 1988-89	1.47	4.89	3.42
teacher/administrator 1988-89	1.48	5.77	4.29
administrator 1989-90	2.08	5.23	3.15
teacher/administrator 1989-90	1.43	6.41	4.98
teacher peer advisors 1989-90	2.65	7.95	5.30
Overall			
administrator 1988-89	38.31	95.11	56.80
teacher/administrator 1988-89	20.74	111.94	91.20
administrator 1989-90	48.54	88.23	39.69
teacher/administrator 1989-90	23.43	116.19	92.76
teacher peer advisors 1989-90	30.10	111.95	81.85

This group received no training but were administered the pre- and post-test. The earned pre-test mean score was 35.41 and the mean post-test score was 37.91 for a mean gain of 2.5 points.).

The 1989-90 administrator group had pre-post scores of 48.54 and 88.23 for a mean gain of 39.69 points, and the 1989-90 administrator-teacher group scored 23.24 and 116.19 for a mean gain of 92.95 points. Finally, a 1989-90 group of teacher peer advisors earned 30.10 and 111.95, for a mean gain of 81.85 points. Table one also shows that in both years, the administrator-only group began the training with more skill than the teacher-administrator and teacher peer advisor groups in the area of data collection, but on the post-test, the administrator-only groups actually obtained lower scores, showing less growth than the other two groups. In the analysis area, the groups' initial scores showed no significant differences among them, but on the post-test, the administrator-only groups once again scored lower than the groups of administrators and teachers together.
The peer advisor group of teachers showed the greatest gain scores in the analysis area, obtaining the highest score of any group on the post-test. Likewise, the peer advisors did significantly better than any of the other groups in the area of prescription.

Table 2 reflects the points gained from the pre- to the post-test in overall ranges. It should be noted that the ranges for administrator-only groups are in the lower half, while the teacher-administrator and peer advisors' scores are centered in the upper part of the scale.

The evidence from the pre- to post-test results indicates a positive impact on the participants' skills in conducting appropriate

Table 2

Growth in Appraisal Skill from Pre- to Post-test in TRIVET Participation

	1988-98		1989-90		
Point Gain from Pre- to Post-test	administrator	teacher/ administrator	administrator	teacher/ administrator	peer advisor
0-10	1	0	1	0	0
11-20	2	0	2	0	0
21-30	1	0	2	0	0
31-40	3	0	2	1	2
41-50	7	0	2	0	0
51-60	4	1	1	2	1
61-70	4	5	1	2	3
71-80	12	4	2	7	3
81-90	1	5	0	7	3
91-100	1	6	0	7	4
101-110	0	3	0	8	2
111-120	0	5	0	2	2
121-130	0	1	0	0	0
131-140	0	1	0	1	0
	N=36	N=31	N=13	N=37	N=20

classroom appraisals as a result of the TRIVET training. However, there is a differential effect of the training between the administrator-only and teacher-administrator groups. The groups of teachers and administrators together showed significantly more gain than did the group consisting only of administrators. The conclusion reached from this difference in the outcomes for the two groups is that the training is more effective when teachers and administrators participate in the training together. The teachers expressed concern about not wanting to look as if they did not know good instruction while they were participating in the workshop with their building principals. Similarly, the principals said they did not want their teachers to think that, as the instructional leaders of their buildings, they did not know effective from ineffective instruction. The presence of the two groups together in the training appeared to raise the level of concern for both groups to perform better than if one or the other groups were in the training alone. The exception to this conclusion is the teacher peer advisor group who out-performed the other groups in the analysis and prescription components. In the first year of their program, the peer advisors were highly motivated to succeed. While still serving in the role of teacher, they evaluate teachers, perform demonstration lessons, and work toward instructional improvement as their main job function.

Participant evaluation of TRIVET. Since its inception in 1988, the TRIVET program has enjoyed consistently enthusiastic appraisal by the nearly 300 participants, with 80% of the categories receiving the highest rating. Among the most frequently-cited strengths of the program have been the materials, the organization of the training, the

data collection and analysis procedures, the actual observation of classrooms, workable suggestions for utilizing Bloom's Taxonomy, non-traditional assessments, learning styles, and instructional planning, the summaries of current research on teacher effectiveness, the opportunity to exchange ideas among other teachers and administrators, and the effectiveness of the workshop instruction. Among the skills respondents felt they gained as a function of their participation have been improvements in their own classroom instruction, citing areas such as planning, classroom management, learning climate, questioning skills, non-traditional assessments, and models of teaching. Participants also cited helpful reflectivity about their own strengths and weaknesses, increased skill in the diagnostics of classroom teaching and prescriptions for growth, greater understanding of Bloom, TESA, and learning styles and an expanded awareness of how to utilize cooperative learning. Other areas of growth reported by respondents included an increased sensitivity to others' needs, improved conferencing skills, and a greater sense of collaboration among staff members.

The quality of participants' written work. Participants were required to submit written assignments, each consisting of the four processes: Pre-observation conference, scripting of class events, thePost-observation conference, and the Action Plan. To monitor the continued improvement in the quality of this written work, instructors completed a review sheet of evaluation criteria for each observation. The maximum number of points for each observation was 12. At the conclusion of the 1989-90 project year, 82% of the participants earned between 75 and 100% of the points possible; 53% earned between 83 and

100% of the points possible, and 24% earned between 92 and 100% of the points.

Teacher self-report of changes in classroom practice. In a follow-up survey, teacher participants of the 1989-90 TRIVET training reported several changes in their teaching practices as a result of their involvement. The most frequently-cited changes include an increased comfort level in working with fellow teachers to both seek and give feedback, greater specificity in making prescriptive suggestions, a healthier appreciation of differences among teaching styles, and an improved sense of confidence for honest self-appraisal and risk-taking. Additional changes were identified in the specific teacher effectiveness areas of planning, classroom management, organization of time, space, and materials, learning climate, student assessment, instructional methods, and oral and written communication.

Teacher Effectiveness profiles. At the conclusion of the program, TRIVET-trained principals and the TRIVET-trained teachers in their buildings collaboratively examined each teacher-trainee's level of competence in the behaviors identified by the Teacher Effectiveness research. These behaviors are those directly addressed throughout the TRIVET training. Of the 36 teachers profiled following the 1989-90 training, 99% of the participants scored at least 75% of the 60 possible points on the profiles. Specifically, 67% scored between 90% and 100%, 22% scored between 80% and 89%, and 11% between 70% and 79% of the points possible.

CONCLUSION

After three years, two of which have involved considerable data collection and analysis, project staff and Cluster decision-makers

have begun to see positive change. As additional computer software and reporting formats are developed, the sophistication and speed of data analysis and retrieval will increase. As additional administrators and faculty are trained in TRIVET and begin to utilize the collaborative approach to improving instruction throughout the building, the quality of classroom instruction and teacher expectations will improve incrementally throughout the Cluster. As building staffs utilize the achievement data and contextual information to develop, implement, and continuously monitor classroom and building intervention plans, student achievement will gradually increase and become more consistent with measured ability. Evidence of the district's commitment to the process was its willingness to award $1,000.00 to each project building to implement its intervention plans and to continue as peer partners to improve classroom instruction by using the TRIVET processes.

The Achievement Formula project has significantly improved the skills levels and attitudes of both teachers and principals, the results of which include the attainment of better grades by students, the promising improvement in student attitudes toward themselves as learners, the gradual increase in positive perceptions about school climate among students and faculty, and the establishment of collaborative relationships among teachers and between teachers and building principals for the improvement of instruction. Staff members involved in project activity, thusfar, are exhibiting greater acceptance of individual student learning needs and higher expectations for student performance. They are more positive about their students, seem less discouraged about the learning environment,

and appear more optimistic about their own ability to make a positive difference in student outcomes.

ACHIEVEMENT FORMULA/TRIVET FLOW CHART

	EFFECTIVE SCHOOLS CRITERIA	CURRENT STATUS	PLAN OF ACTION (in collaboration with existing programs in the Cleveland Schools)	SUCCESS CRITERIA
STUDENTS	ACHIEVEMENT	PRIOR ACHIEVEMENT/ABILITY <--> ANTICIPATED ANTICIPATED <--> ACTUAL <--> DISCREPANCY	INTERVENTION PLANS to increase student achievement -individual -classroom -building -cluster	student achievement closer to measured ability parity of achievement between minorities and non-minorities certified employability skills in reading, writing, math and good work habits respectable showing on state competency test scores
	ATTITUDE	The Student Self (Soares & Soares) grades 2/3: -22.....+22 grades 4-8: -40.....+40	-to increase classroom success -to increase student self-esteem, including -teacher -parent -agencies -IRT teams	80% of the students will score between +10 and +40 (grades 4-8) or +5 and +22 (grades 2,3)
	ATTENDANCE	DAYS ABSENT (of possible 180)	-to improve attendance -to increase opportunities for success (including parents, outside agencies, IRT teams, etc.)	80% of the students miss fewer than 10 days each year
	CLIMATE	Connecticut School Effectiveness Survey percent positive on -decision-making -high expectations -consideration -monitoring of student progress -responsiveness to student needs -time-on-task -safe/orderly environment -school/community relations -equity -academic pressure -school mission	-to increase safety and orderliness of the building -classroom plans -building plan -other agencies/programs, e.g. business sponsorship	70% of the students and 80% of the teachers feel positive about at least 9 factors
STAFF	INSTRUCTIONAL LEADERSHIP	EFFECTIVE LEADERSHIP (faculty survey of principal) -presence/visibility -decision-making -curriculum/instruction -interpersonal relations	-to increase the instructional leadership demonstrated by the building principal -job targets -greater involvement with instruction	Each principal in the Cluster is rated successfully on all four criteria by at least 90% of the staff
	QUALITY OF INSTRUCTION/ TEACHER EXPECTATIONS	TRIVET TRAINING (instructional improvement system based on Teacher Effectiveness Research) -pre-observation confer. -Planning -script-taping instruc'n -Behavior Managment -post-observation confer. -Organization of Time/ Space/Materials -action plan for growth -Learning Climate -15 TESA Behaviors -Student Assessment -Instructional Methods -Oral/Written Commun. (each teacher profiled on above criteria)	-to improve classroom instruction and teacher expectations -building staff development goals -individual teacher job targets -additional monitoring of instruction (teachers working with teachers) -additional training for growth	Short-term 90% of the TRIVET-trained teachers score at least 80% on both profiles Long-term, 90% of the Cluster teaching staff are TRIVET trained
DISTRICT	INSTITUTIONAL COMMITMENT	INTERVIEW OF KEY DISTRICT PERSONNEL verbal and written documentation of district commitment to increased student achievement	identify areas where commitment is not strong or non-existent policies/procedures staffing programming	The Kennedy-Marshall Cluster and the entire Cleveland district should assemble various decision-makers and secure commitments in staff, program support, and policies that document efforts toward Effective Schools

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1990-91 KENNEDY-MARSHALL ACHIEVEMENT FORMULA PROJECT
BUILDING INTERVENTION PLAN

BUILDING Adlai Stevenson PRINCIPAL/DESIGNEE Charles Russo DATE 1990-91 [mid-year]

BUILDING TARGET #1: ACHIEVEMENT

A. Reduce the discrepancy between students' actual and anticipated achievement on local objectives
B. 75% of the students will master at least 80% of the local objectives
C. 93% of the students will score in the average to above average ranges on the vocabulary and comprehension subtests of the California Achievement Test
D. Reduce the disparity between minority and non-minority students of achievement on local objectives

ACTIVITIES/STRATEGIES	WHO	WHEN	ANTICIPATED IMPACT	ACTIVITY TO DATE	1991-92 FOLLOW-UP
1. Analyze test scores and share with staff members			principal functioning as instructional leader; knowing test results/achievement needs; target areas seen as building priorities; establish sense of mutual responsibility at all grade levels for improving student performance	1. Test scores (CTBS) were analyzed and shared with staff; a. Major work format/ strategies implemented in all grade 3 classes; special focus on Creative Writing b. Test items analyzed for patterns of error; error patterns addressed generally in lunch room programs organized by Principal.	
a. prioritize or target specific skill areas or objective (e.g., 2/5 + 2/5 = 4/5)	Principal/Teachers	as report is returned from research			
b. examine item analysis to discern error patterns	Principal/Teachers	as report is returned from research			

NCPEA: M/91

2. Increase the amount of time spent on specific objectives (e.g., adding fractions)	Teachers	1990-91	increased academic engaged time/time-on-task in specific target areas; reduce time spent on "mastered" skills	2. Meeting of 11/90 disucssed tests and how to increase time on task; implemented TRIVET ideas e.g., a. Cooperative learning b. Transitions c. Routines d. Webbing e. More focus on Hands-On Learning.	
3. Track Stevenson students into their Intermediate buildings; determine which skills are lacking; translate into grade level/building skill targets	Project Staff	1990-91	increased focus on "skills not mastered by students in the previous grade", in all grade levels throughout building	3. Staff focused on skills not mastered prior to each grade throughout the building.	
4. Implement "Major Work" strategies in all classrooms (e.g., daily talks, literature club, problem-solving)	Teachers	1990-91	increased expectation levels for all students, especially lower functioning; increased expectation levels and self-confidence among students themselves	4. Major Work Strategies are being employed in all classrooms.	
5. Implement "Scoring High," a series of programmed learning lessons on test-taking	Teachers/Principal	2nd semester, 90-91	improved test-taking skills and greater self-confidence among all students; reduced test anxiety; reduced absenteeism on test day; build students' confidence	5. Using an overhead projector, Principal projects test pages in lunch room; demonstrates how test taking can be a fun activity.	

6. Increase the amount of writing in each classroom (e.g., journals, practice in writing complete sentences, effective paragraphs)	Teachers	1990-91	improved written composition scores on district test improved writing skills reflected in daily assignments greater confidence among students and staff in the benefits of the writing process	6. School-wide emphasis on writing a. Essay samples selected and displayed on Bulletin Boards b. Principal and Ms. Branch secured Coca Cola/Rite Aid Note Books for creative journals c. Students provided with folder; facilitated storing of creative ideas.	
7. Expand the use of non-paper/pencil activities and assessments in all classrooms (e.g., signaling, webbing)	Teachers	1990-91	increased student involvement through signaling answers more frequent checking for understanding	7. Implemented concepts such as webbing, signaling; more "Practical Hands-on" activities in lessons are being done at all grades.	
8. Involve all students in more quadrant 4 experiences through interactive science activities that include reading, writing, social studies, and math	Principal/Teachers	1990-91	greater student integration of skills taught; actual ownership of concepts; ability to apply independently the feeling that learning is "wholistic" and interdisciplinary; greater vertical articulation	8. Students participated in: a. Invent America b. Science Fair c. Urban League Art d. Black History Achievement PTA worked on a Christmas Program that involved all students from the school.	

9. Provide students specific incentives for reading at least one book or more each semester; specifically tied to classroom work	Principal/Teachers	1990-91	number of books read will increase dramatically; students will be more eager to read and find reading more enjoyable; will see reading as crossing all subject areas	9. Several activities underway: a. Teachers monitored students' reading in class; students received stars next to their names b. Principal monitors kindergarten and 6th grade reading c. "Bookit Program" sponsored by Pizza Hut is in place; readers with highest number of books read get rewards d. Young Authors Program organized by 3rd and 4th grade teachers; ties Reading and Creative Writing e. Academic Action focusing on improved reading in place f. Principal encourages all students to be members of the Harvard-Lee Library.

NCPEA: M/91
29

BUILDING TARGET #2: ATTENDANCE

Increase/maintain level of attendance at or above 95%

ACTIVITIES/STRATEGIES	WHO	WHEN	ANTICIPATED IMPACT	ACTIVITY TO DATE	1991-92 FOLLOW-UP
1. Discuss attendance with students in school-wide assemblies and via posters and lunchroom activities	Principal	90-91	attendance established as building-wide priority	1. Assembly talks, lunch room activities, and posters focus on regular attendance.	
2. Discuss attendance with parents and students; check attendance sheets daily; target selected students	Principal	90-91	parents realize importance of attendance and reinforce with children; improved attendance	2. On-going activities a. smaller class sizes for greater 1:1 attention [upper elementary improved over last year] b. Principal checks attendance on a daily basis.	
3. Track/monitor student attendance; call parents	Teachers	90-91	[same]	3. Student absences being monitored; parents are kept informed.	

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4. Provide incentives for good attendance (points/pencils/awards)	Principal/Teachers/Office Staff	90-91	students willing to assume responsibility for attendance	4. Incentives include a. Monthly awards such as pizza party b. Semester recognition assembly for individual students c. Newsletter sent to parents includes signatures of students with perfect attendance d. Classes [and students] with perfect attendance are photographed; pictures are displayed in main hall/ reception area.

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BUILDING TARGET #3 ATTITUDE

Improve student self-confidence, self-reliance, and pride in achievement

ACTIVITIES/STRATEGIES	WHO	WHEN	ANTICIPATED IMPACT	ACTIVITY TO DATE	FOLLOW-UP
1. Implement Social Skills Curriculum for the prevention of violence (role-plays on courtesy, increased self-esteem)	Grade Level Chairs	weekly	improved social skills, self-acceptance, tolerance of others; self-awareness and feelings of belonging	1. Are currently implementing self-concept ideas in Social Studies Curriculum.	
2. Implement "Children are People"	Teachers	weekly		2. "Children are People" has been implemented.	
3. Implement "Me-ology"	Teachers	weekly		3. "Me-ology" implemented at all grade levels.	

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4. Implement BABES [substance abuse prevention]	Teachers	weekly	more awareness of substance abuse crises and methods to avoid participation; students learn prevention of and rewards for non-substance abuse; greater sense of self worth; responsibility not to be an enabler	4. "Babes" substance abuse prevention is in place.	
5. Implement DARE [drug awareness]	Officer Hussein			5. Officer Hussein runs a program for 6th graders for 17 weeks; 2nd graders for 2 to 3 weeks and the kindergarten for 1 week.	

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6. Conduct specific lunch room activities to improve self-esteem (e.g. design helmets, coats-of-arms, cereal boxes, football player, T-shirts)	Principal-led	daily	children associate principal with being "on their side", student identity reinforced, creativity encouraged; sense of individual worth enhanced	6. Activities began in December and include a. Talks by Football Players b. Creative artistry; e.g. design a Tennis shoe c. Test-taking skills d. Indoor games e. Spelling Bee
7. Continue school-wide programs to raise levels of self-confidence, pride in achievement (e.g. Science Fair, Red Ribbon parade, Student Council, Invent America, Carnival, etc.)	Principal/Staff/Students	at intervals 90-91	continued reminders that the expectations of students from staff are high and that opportunities abound for creative and knowledgeable self-expression for all students, irrespective of ability or prior knowledge	7. Students participated in several school wide/ programs a. Invent America b. Student Council c. Science Fair d. Red Ribbon Parade.

BUILDING TARGET #4: CLIMATE

Increase positive exposure of Adlai Stevenson Elementary School to its residents/parents

ACTIVITIES/STRATEGIES	WHO	WHEN	ANTICIPATED IMPACT	ACTIVITY TO DATE	1991-92 FOLLOW-UP
1. Conduct Needs Assessment of Adlai Stevenson community [modified Connecticut instrument]	Principal	September 1990	the perception among residents that the school is responsive to their feelings and preferences	1. Return rate of 50% [200 of a possible 400]; very positive results.	
2. Reduce concern among staff about SBH students who are mainstreamed into regular classes	Principal	90-91	mainstreamed SBH students will be successful in the regular class; teachers will be less relectant to admit SBH students; SBH parents will assume responsibility for students' classroom behavior	2. Meeting held on October 12, 1990, addressing mainstreamed SBH students; staff shared information on: a. Behavior Modification b. Restraints c. Inservice d. Alternate Discipline Plans.	
a. use behavior contracting [behavior modification]	Teachers				
b. adapt Low Incidence discipline techniques to "regular" students	LI Teacher/Teachers				

3. Strengthen building intervention-assistance teams	Principal/Staff/Parents	90-91	parents will be directly and successfully involved in alternative educational plans for their children	3. Two teachers (Mr. Davis and Mr. Bell) have been trained in Crisis Intervention.	
4. Bolster student pride in appearance of building, and ownership in its activities	Principal/Staff	90-91	less vandalism, litter, carelessness; more respectful treatment of facilities	4. Lunch room activities organized by Principal include talks about boosting student pride in the building and developing a sense of ownership.	
5. Present Fashion Show by faculty members; spoken in French; students interview teachers	Staff	Spring 1991	greater sense of "comraderie" between teachers and students	5. Organized and scheduled for June, 1991.	

BUILDING TARGET #5: INSTRUCTIONAL LEADERSHIP

Improve staff perception of principal as instructional leader

ACTIVITIES/STRATEGIES	WHO	WHEN	ANTICIPATED IMPACT	ACTIVITY TO DATE	1991-92 FOLLOW-UP
1. Provide for grade level meetings that focus on academic/instructional matters as per Instructional Leadership Profile	Principal/Teachers	bi-monthly 90-91	continuous reference to building targets, team approach to dealing with instruction	1. Monthly meetings are held.	
2. Conduct greater number of classroom visitations; offer specific suggestions for how to improve	Principal	90-91	teachers respect principal's knowledge about instruction; trust his judgment as to what will be an effective prescription	2. Principal has visited and observed every class at least once each semester.	
3. Talk with students about their achievement, study habits	Principal	1/2 period monthly lunch time	students realize that principal values achievement and that he considers himself as a partner with teachers	3. On-going activities include a. Lunch Room Sessions by Principal b. Principal releases classroom teacher and uses the opportunity to grow closer to students by talking to them on a more personal level.	

BUILDING TARGET #6: QUALITY OF INSTRUCTION

Increase use of Quadrant 4/Integration activities in all classrooms

ACTIVITIES/STRATEGIES	WHO	WHEN	ANTICIPATED IMPACT	ACTIVITY TO DATE	1991-92 FOLLOW-UP
1. Identify classroom management difficulties with an early primary teacher a. time-on-task b. attention span	Principal/Specific Teachers	90-91	positive (firm yet not oppressive) control, resulting in increased student achievement	1. As a result of visitations and observations, suggestions are made to teachers to improve time on task and student attention span.	
2. Increase number of activities in Quadrant 4	Teachers	90-91	more integration of concept/skills; more interactive, interdisciplinary learning opportunities	2. Teachers are implementing more integrative/quandrant 4-type activities.	
3. Reduce amount of lecture; increase use of grouping	Teachers	90-91	increased direct student involvement; greater responsibility on part of student for learning	3. Hands-on integrated activities have increased.	
4. Reach all students not just those who are easiest to teach	Teachers	90-91	improved achievement among lowest functioning	4. All students encouraged to complete Quadrant 4 projects for display in the halls.	

BUILDING TARGET #7: TEACHER EXPECTATIONS

Increase staff expectations beyond satisfaction with "strong" and on to "excellence"

ACTIVITIES/STRATEGIES	WHO	WHEN	ANTICIPATED IMPACT	ACTIVITY TO DATE	1991-92 FOLLOW-UP
1. Continuously push students to "try harder"/achieve higher	Principal/Teachers	90/91	students will feel they can and should "do more", even exceed their own predicted levels	1. Products/items made at Lunch Group sessions, e.g., a. Rap sessions b. Drawing/designing tennis shoe c. Work sheets.	
2. Encourage staff to expect more of themselves and students	Principal/Teachers	90/91	staff will not settle for adequate or even strong but push for excellent	2. Teachers engaged in a. Proposal/grant writing b. Inservices c. Faculty Meetings d. Staff Led Teams e. Attendance and participation in Union Conferences.	

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